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10/808,292

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Tetsuji Kondo

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

GIMIE, MAHMOUD

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TETSUJI KONDO and MIKIHICO SUZUKI

Appeal No. 2008-0003
Application No. 10/808,292
Technology Center 3700

Decided: March 6, 2008

Before WILLIAM F. PATE, III, TERRY J. OWENS and
MICHAEL W. O'NEILL, *Administrative Patent Judges*.

PATE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from the final rejection of claims 3, 4, 7, 10 and 11. These are the only claims remaining in the application. We have jurisdiction under 35 U.S.C. §§ 134 and 6.

The claimed invention is directed to a fuel injection mounting device for mounting a fuel injection valve on a fuel distribution pipe. The fuel injection valve

is provided with a snap spring that is fitted into a fitting hole on a band-shaped protrusion provided on the fuel distribution pipe.

Claim 3, reproduced below, is further illustrative of the claimed subject matter.

3. A fuel injection device comprising a fuel distribution pipe and a fuel injection valve mounted on said fuel distribution pipe,
wherein a band-shaped protrusion extends in the radial direction from a flange portion of a connecting pipe member arranged on said fuel distribution pipe and further extends in parallel to the axis of said fuel injection valve, said band-shaped protrusion is provided with a fitting hole, and said fuel injection valve is provided with a snap spring that is fitted into said fitting hole and extends in the axial direction of said fuel injection valve.

The reference of record relied upon by the Examiner as evidence of anticipation and obviousness is:

Franchitto

US 5,724,946

Mar. 10, 1998

Claims 3 and 11 stand rejected under 35 U.S.C. § 102 as anticipated by Franchitto.

Claims 4, 7, and 10 stand rejected under 35 U.S.C. § 103 as unpatentable over Franchitto.

OPINION

We have carefully reviewed the rejections on appeal in light of the arguments of the Appellants and the Examiner. As a result of this review, we have reached the conclusion that the applied prior art neither anticipates claims 3 and 11 nor renders obviousness the subject matter of 4, 7, and 10. Our reasons follow.

It is the Examiner's finding that pin 232 shown in Figures 4-7 corresponds to Appellants claimed snap spring. Franchitto describes pin 232 as a "locking pin

projecting generally radially from the fuel injector mounting end.” See col. 3, ll. 4-5. In describing the function of the locking pin, Franchitto states, “[t]o mount the fuel injector 214, the locking pin 232 is received in the locking groove 218, urged past the necked[-]down portion 220, and received in the retaining portion 222 of the locking groove. In addition to providing a snap fastening arrangement, this embodiment provides for the rotational indexing of the fuel injector 214 relative to the injector cup 212 and fuel rail.” See col. 3, ll. 5-11. This disclosure indicates to us that the resiliency in the connection between the cup 212 and the injector 214 is provided by the necked-down portion 220 as the cup 212 is pushed onto the pin 232. Franchitto describes this as a snap fastening arrangement. The snap fastening is provided by the necked-down portion which expands slightly and then snaps back when the pin is seated in the wider retaining portion 222. It is our finding that pin 232 is not a resilient or spring member. It is merely a rigid member that cams the necked-down portion 220 apart as the injector valve body is mounted. Once past the pin 232, the necked-down portion 220 relaxes holding the pin 232 in the retaining portion 222. Consequently, it is our finding that Franchitto does not anticipate the claims on appeal.

In view of our finding that Franchitto lacks a snap spring as called for in the independent claim, it is our further legal conclusion that Franchitto does not render obvious the subject matter rejected under § 103.

CONCLUSION

The rejection of claims 3 and 11 under 35 U.S.C. § 102 is reversed.

The rejection of claims 4, 7, and 10 under 35 U.S.C. § 103 is also reversed.

REVERSED

Appeal 2008-0003
Application 10/808,292

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037